muscles still contracted when mechanically irritated, the peristaltic motion of the intestinal canal was weak, the stomach was found to be very much inflamed, the colour of the small intestine was not changed, the gastric contents smelt strongly of alcohol, and were partly coagulated. "The chemical action of alcohol on the coats of the stomach was placed beyond all doubt; the epithelium was detached only in some places; it was of a gray-white colour, easily torn, the form of its cells were changed, and they appeared, as it were, shrivelled up. The vascular membrane was of a dark-red brown, full of blood, and penetrated with a partly clear or reddish-coloured exudation, whereby it was increased in thickness, but the exudation itself was not coagulated; the muscular and peritoneal coats were not much altered, the small intestine was little changed; the large intestine, the lungs, heart, kidneys, and liver, were in their natural state; the brain and vessels of the cerebral membrane were not very much filled with blood, nor was any exudation perceptible; the blood did not appear in any way changed, nor could the odour of alcohol be detected. *Dilute alcoholic fluids produce no chemical change in the coats of the stomach, but in the case of persons of temperate habits, chemical reactions are to be apprehended from the immoderate use of a fluid containing forty per cent. of brandy.*"

Ether does not appear to exercise a chemical action on organic matters. A drachm of it was injected into the stomach of a rabbit. The animal seemed but little excited by it, but became very soon insensible, and fell on its side; the body became tympanitic, and after fourteen minutes death followed without spasms; on opening the body the smell of the ether was very perceptible, the stomach and small intestine were much inflamed, but the cells of the gastric mucous membrane did not differ much from their natural state; in some cases, where the mucous membrane was covered with blood, the epithelial cells were swollen to about six or eight times their natural size; the vascular membrane was much injected, the muscular and peritoneal coats were not changed; the small intestine was inflamed, and contained much ether. If, in cases where large doses of ether were given, death followed very soon, the intestinal canal was not changed. Sometimes the animals die of suffocation amid the rapid evaporation of the ether. The ether accordingly occasions violent inflammation of the stomach and intestinal canal; it penetrates the membranes, and is then conveyed into the blood-vessels. A chemical action on the tissues could not be perceived.—*Medico-Chirurg. Rev.*, January, 1844.

73. *Poisoning of Children by coloured Confectionary and Paints.*—The French and German journals frequently contain accounts of fatal accidents from the above causes, and I doubt whether sufficient attention is paid to the subject in this country.

Dr. BEER, of Vienna, was called to five children, aged from three to eleven years, who had eaten of those coloured *bonbons*, of which sugar is the principal constituent. Some were seized immediately after eating, others a few hours afterwards. The symptoms were great thirst, headache, vertigo, nausea, dryness of the mouth, vomiting of a dark brown or green matter, severe pain in the bowels and tenderness to the touch, retention of urine, obstinate constipation, with constant tenesmus, and cold sweats. These were succeeded by violent pains in the head, light delirium, spasms and somnolency, which last, in three instances, was followed by coma. In a patient eleven years old, diarrhœa occurred, and in another a vomiting of mucus and blood.

All, however, recovered by the antiphlogistic treatment and external stimulant applications, but a difficulty in passing urine continued for several days in two of them. On examination, by a competent chemist, these *sugar meats* were found to contain a notable proportion of oxyde of copper. (*Oesterr Med. Wochenscrift.*)

As to cakes of paint, Dr. LEWENSTEN, of Berlin, witnessed the poisoning of a child from biting one of green ink, and which, when analyzed, proved to be composed of arsenite of copper.

Another child in Paris amused itself by attempting to make pictures with the colours in a paint-box, and, as is quite common, effected this by moistening the end of the cake in its mouth. It was shortly after seized with all the symptoms of poisoning, from which it was relieved by early remedies. The parents, desirous of ascertaining the cause, requested M. Regnard to examine the paints. He ascertained that the one used by the child, which was of a dark green, consisted of cyanuret of iron and chromate of lead; two others consisted of arsenite of copper.

Mr. Regnard adds that the yellow paints are thus coloured by gamboge or chromate of lead; the red with cinnabar, or the red oxyde of lead; the white with white lead; the blue with carbonate of copper, while the green are coloured, as above stated, with arsenite of copper, (Scheele's green,) or a mixture of Prussian blue and chromate of lead.

Moral.—Never permit young children, or even those of a larger growth, to use water-colour paints away from the eye of the parent or nurse.—*Encyclographie Des Sciences Médicales*, Aug. and Oct., 1843. T. R. B.

74. *Toxicological Experiments with Nitrate of Potash.* Academy of Sciences, Paris, July 31, 1843.—MM. MOJON and ROGNETTA made a report of their experiments on rabbits with this substance, for the purpose of elucidating the following points.

1. Is it true that nitrate of potash is not absorbed by the skin, as Orfila and other toxicologists assert? Our experiments have given us directly opposite results. We have poisoned rabbits by injecting a solution of the salt into the subcutaneous cellular tissue. A full grown rabbit died in six hours after thus injecting 240 grains of nitrate of potash dissolved in 3¼ ounces of water.

2. When introduced into the stomach, what is the *minimum* mortal dose to a rabbit? Forty grains, dissolved in three and a quarter ounces of water, and injected into the stomach, killed rabbits in from thirty to forty hours. Twenty and even thirty grains did not destroy them, but death followed in from four to five hours, when sixty grains were injected.

On dissection, in these cases, not the slightest mark of inflammation or erosion in the stomach, intestines, or kidneys, could be found. On the contrary, these parts were all pale and remarkably flaccid. The abdominal veins were alone gorged with blood.

The most remarkable symptom attendant on these poisonings, was the extraordinary secretion of urine. It commenced almost immediately after the injection of the salt, and continued until a very few hours before death.

3. Are there any antidotes to nitrate of potash? We regard its action as asthenic or debilitating, and hence believe that a stimulant treatment is best calculated to counteract its effects. We dissolved forty grains in about three and a quarter ounces of light wine, and injected the mixture into the stomach. In all cases the animal survived the experiment; we hence conclude that the stimulant effect of alcohol will neutralize the poisonous qualities of nitrate of potash.

Dr. Henry Bennet asserts that nitrate of potash may be safely given in large doses; (see p. 210, of this No.)

He coincides in opinion with Mojon and Rognetta as to its sedative effects. This, indeed, is shown by the experiments of Orfila on animals.

It is quite probable that the escape of individuals, after taking large quantities of saltpetre, may be susceptible of the above explanation. But may not the disease present have some effect, like pneumonia on tartar emetic? T. R. B.

75. *On Poisoning by Copper.* By MM. DANGER and FLANDIN.—The following process has enabled the experimenters to detect the hundred-thousandth part of this metal mixed with organic matters. Carbonize the animal matters with one-third of their weight of sulphuric acid, and carry this process to a low red heat. Reduce the charcoal thus obtained to powder, add sulphuric acid sufficient to moisten it, and then boil the mixture, but not to dryness. If now